Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) A method of formulating a pharmaceutical composition comprising:

comparing parameters of at least one pharmaceutical and a plurality of compounds, wherein the parameters consist of ~~comprise~~ at least log(P) and molecular weight;

based on the compared parameters, choosing at least one model compound from the plurality of compounds for each pharmaceutical, wherein the at least one model compound is different from the at least one pharmaceutical;

providing at least one model compound-excipient formulation comprising at least one model compound and at least one excipient;

measuring the diffusion of a model compound of at least one model compound-excipient formulation across at least one membrane;

choosing a model compound-excipient formulation based on the measured model compound diffusion; and

combining components comprising the at least one pharmaceutical and the excipient package of the chosen model compound-excipient formulation.

2. (Original) A method according to claim 1, wherein the model compound-excipient formulation is saturated in model compound.

3. (Original) A method according to claim 1, wherein the parameters further comprise the number of freely rotatable bonds.

4. (Previously presented) A method according to claim 1, wherein the parameters further comprise the number of hydrogen bond donors and acceptors.

5. (Original) A method according to claim 1, wherein the diffusion is measured utilizing a Franz cell.

6. (Original) A method according to claim 1, wherein at least one model compound comprises a dye.

7. (Currently amended) A method according to claim 6, wherein measuring the diffusion of the at least one model compound across the at least one membrane comprises fluorescence spectroscopy.

8. (Currently amended) A method according to claim 6, wherein the diffusion of the at least one model compound is simultaneously measured in a plurality of diffusion cells.

9. (Currently amended) A method according to claim 8, wherein measuring the diffusion of the at least one model compound comprises recording an image.

10. (Original) A method according to claim 1, wherein at least one model compound-excipient formulation comprises a plurality of different excipients.

11. (Original) A method according to claim 1, wherein diffusion is measured utilizing a chemical reaction.

12. (Original) A method according to claim 1, wherein at least one membrane comprises a synthetic polymer membrane.

13. (Original) A method according to claim 1, wherein at least one membrane comprises skin.

14. (Original) A method according to claim 1, wherein at least one membrane is selected from the group consisting of hairless mouse skin, snake skin, pig skin, and cadaver skin.

15. (Original) A method according to claim 1, wherein the parameters consist of log(P) and molecular weight.

16. (Original) A method according to claim 1, wherein at least one parameter of at least one model compound is calculated.

17. (Original) A method according to claim 1, wherein at least one parameter of at least one model compound is experimentally determined.

18. (Original) A method according to claim 1, wherein at least one parameter of the pharmaceutical is calculated.

19. (Original) A method according to claim 1, wherein at least one parameter of the pharmaceutical is experimentally determined.

20. (Original) A method according to claim 1, further comprising:

contacting the pharmaceutical composition with the skin of a live mammal; and observing the result.

21. (Original) A method according to claim 1, further comprising incorporating the pharmaceutical composition into a transdermal delivery system.

22. (Original) A method according to claim 21, further comprising contacting the pharmaceutical composition with the skin of a live mammal and observing the result.

23. (Original) A method according to claim 21, wherein the transdermal delivery device comprises an adhesive patch.

24. (Original) A method according to claim 1, wherein prior to measuring diffusion of each model compound-excipient formulation, it is incorporated into an adhesive patch.

25. (Withdrawn) A method according to claim 1, wherein the model compound-excipient formulation comprises a plurality of model compounds.